

CLAIMS

1. A fish and shellfish meat treated with a lactic acid bacteria cultivation medium having antibacterial and anti-oxidative effects due to substances produced by the lactic acid bacteria.

2. A fish and shellfish meat according to Claim 1 wherein the lactic acid bacteria comprise a lactic acid bacterium having antibacterial and anti-oxidative effects, or two lactic acid bacteria in combination, one having antibacterial effect and the other anti-oxidative effect.

3. A fish and shellfish meat according to Claim 1 or 2 which is free from *Listeria* contamination and whose color tone is preserved.

4. A fish and shellfish meat according to Claim 1, 2 or 3 wherein the cultivation medium is sterilized or deprived of lactic acid bacteria.

5. A fish and shellfish meat according to any one of Claims 1 to 4 wherein the treatment comprises immersing the meat in a lactic acid bacteria cultivation medium.

6. A fish and shellfish meat according to any one of Claims 1 to 5 wherein the lactic acid bacteria comprise a combination of *Lactobacillus sake* D-1001 (IPOD FERM PB-08544) and *Lactococcus lactis* IFO 12007.

7. A fish and shellfish meat according to any one of

Claims 1 to 6 wherein the meat is derived from salmon, trout or cod.

8. A fish and shellfish meat according to any one of Claims 1 to 7 wherein the meat contains astaxanthin.

9. A fish and shellfish meat according to any one of Claims 1 to 8 wherein the meat comprises fresh fish and shellfish meat, pasteurized fish and shellfish meat, fresh fish eggs or pasteurized fish eggs.

10. A smoked fish and shellfish meat obtained from the fish and shellfish meat according to any one of Claims 1 to 9.

11. An anti-oxidative agent containing a cultivation medium used for cultivating *Lactobacillus sake* D-1001 (IPOD FERM BP-08544).

12. A color tone preserving agent based on the anti-oxidative effect of a cultivation medium used for cultivating *Lactobacillus sake* D-1001 (IPOD FERM BP-08544).

13. A color tone preserving agent useful for the storage of astaxanthin-containing food products based on the anti-oxidative effect of a cultivation medium used for cultivating *Lactobacillus sake* D-1001 (IPOD FERM BP-08544).